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A PROPOSAL FOR IMPLEMENTING A COMPREHENSIVE MANAGEMENT BY OBJECTIVES SYSTEM IN THE AIR FORCE INSTITUTE OF TECHNOLOGY

Captain Todd I. Stewart, USAF

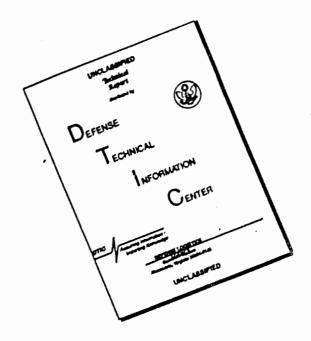
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A PROPOSAL FOR IMPLEMENTING A COMPREHENSIVE MANAGEMENT BY OBJECTIVES SYSTEM IN THE AIR FORCE INSTITUTE OF TECHNOLOGY

A School of Systems and Logistics AU-AFIT-LS Technical Report

Air University

Air Force Institute of Technology

Wright-Patterson AFB, Ohio

By

Todd I. Stewart Captain, USAF

November 1979

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This report describes a proposal for designing and implementing a comprehensive Management By Objectives (MBO) system in the Air Force Institute of Technology (AFIT). The report includes three major sections. In the first, basic MBO concepts are introduced and discussed. Particular attention is given to identifying the pitfalls commonly encountered with MBO programs. The second section of the report describes a general blueprint for designing and installing a comprehensive MBO system that is "custom fit" to the specific management needs of AFIT. The distinctive feature of this plan is a conceptual framework which is derived from the mission statement and which defines associated key result areas. The framework also provides a basis for systematically defining performance criteria and related standards and, subsequently, goals and objectives. The third section of the report presents a general plan for implementing the recommended system throughout AFIT.

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INTRODUCTION

Purpose

This report presents a proposal for designing and installing a comprehensive Management By Objectives (MEO) system in the Air Force Institute of Technology (AFIT). It has been prepared in response to a request from the Plans and Evaluation Division, Directorate of Education Plans and Operations (AFIT/EDV). The principal motive for this proposal is an interest expressed by the AFIT Commandant in developing a comprehensive MBO system for AFIT which effectively supports the Air University (AU) and Air Training Command (ATC) MBO programs and which meets the objectives of those programs as described in AUR 25-1, "Management By Objectives (MBO) Planning," and ATCP 25-4, "ATC Management By Objectives."

Overview

This report is organized into three main sections. The first provides a brief, but very important, introduction to the general concept of MBO. This discussion highlights both potential advantages and pitfalls of implementing MBO. The second section describes a general blueprint for designing and installing a comprehensive MBO system that is "customfit" to the specific management needs of AFIT. The distinctive feature of this plan is a conceptual framework which is derived from the mission statement and which defines associated key result areas. The framework also provides a basis

for systematically defining performance criteria and related standards and, subsequently, goals and objectives. The third section of the report presents a general plan for implementing the recommended system throughout AFIT. In addition, the report includes a bibliography of suggested references on MBO, several examples of completed management objective guides, and copies of AUR 25-1 and ATCP 25-4.

A final introductory note: It is important that you read this report in the sequence in which it is presented. More specifically, you should not skip over the first section on basic MBO concepts under the assumption that you are already familiar with MBO or that you can infer its general thrust from its label. The material presented in Sections II and III has been developed under the assumption that you understand and appreciate the concepts and philosophy presented in Section I.

T.I.S.

SECTION I: MANAGEMENT BY OBJECTIVES - BASIC CONCEPTS

Background

MBO is perhaps the most widely applied...and misapplied...
general approach to management in use today. MBO programs
and systems have been installed in a variety of private and
public sector organizations ranging from ITT and IBM to the
Catholic Church and the Department of Defense. Within the
Air Force, MBO programs have been implemented at command,
wing, base, and organizational levels, often under a variety
of labels and formats, e.g., Management By Results, Management By Objectives and Results, and Performance Management.
MBO is more than a program which emphasizes the systematic
setting of goals and objectives and which focuses on the
achievement of verifiable results. It is a philosophy,
process, and general system of management.

The evolution of MBO spans a period of some 25 years. In 1954, Peter Drucker provided what was probably the first definitive statement of the MBO process and philosophy. Drucker emphasized the importance of clearly and specifically identifying the fundamental purpose or mission of the organization and those associated critical (functional) areas in which effective performance and satisfactory

Drucker, P.F., The Practice of Management, (New York: Harper & Row, 1954)

results are necessary for accomplishing the basic mission. Further, Drucker promoted the notion of an integrated hierarchy of objectives based on, and supporting, the organization's primary purpose. According to Drucker, every manager is responsible for establishing objectives for his/her department or unit, objectives which are defined in terms of their contribution to the goals of the larger system of which the organization is an element or constituent subsystem. In turn, the objectives established at any particular organizational level provide a framework and direction for units subordinate to that level. To insure that the objectives at each level are consistent with those at higher levels, each manager also participates in developing the objectives of the next higher unit.

The notion of participative goal setting is also central to the philosophy and process of MBO. Such participation makes it possible for each manager to have some input to the decision process which determines those objectives/results for which he or she will subsequently be held accountable. This participative feature, coupled with clearly defined objectives, is presumed to lead to increased motivation and commitment on the part of the individual manager. Douglas McGregor and other distinguished behavioral scientists have emphasized the importance of securing commitment through the integration or linking of individual needs and desires

with the goals/objectives of the organization. MBO provides a framework for systematically encouraging individual goals and objectives while, at the same time, furthering the goals of the organization.

During the early stages of its application, MBO programs were rather narrowly focused on evaluating the performance of managers. MBO's emphasis on participative goal setting, self-direction, and accountability for results was seen as a more satisfactory approach than performance appraisals based solely on a subjective assessment of various personality traits, e.g., "competence," "job knowledge," "initiative," "creativity," "professionalism," and the like. However, MBO programs that are directed exclusively at performance appraisal tend to become increasingly less effective if they do not move beyond that limited focus.

In the late 1960's, MBO programs assumed a broader perspective, incorporating the notions of integrated goal structures and participative goal setting into the organizational planning and control processes. Objectives became tied to plans and budgets and, as a result, MBO programs began to receive more direct top management interest and involvement. Within the past decade, MBO programs have emerged as total management systems designed to integrate and orchestrate all facets

²McGregor, D., "An Uneasy Look at Performance Appraisal," Harvard Business Review, (May-June 1957, pp 89-94).

of managerial activity.

The MBO Process

The MBO process consists of three general and interrelated phases:

- (1) Goal Setting. The essence of MBO lies in establishing verifiable objectives that are (ultimately) derived from a clear statement of the organization's mission and which are linked to one another in an integrated hierarchical structure. This goal structure provides a framework for helping managers direct their attention and available resources to those areas which are truly important to the success of the organization. Conversely, it also helps managers at all levels in the organization avoid wasting their time, resources, and energy on problems and issues which are marginal in significance and contribution to meeting higher level goals and, ultimately, the basic mission of the organization.
- (2) Action Planning. Objectives set in the first phase of the MBO process specify desired results or outcomes which management views as critical to the success of the organization. Ideally, these goals and objectives are not legislated or directed down from on high, but rather are developed through the interaction and joint deliberation of various supervisor-subordinate pairs at each level. The individual responsible for a particular outcome then develops a plan or

strategy for achieving that objective, i.e., the individual determines what resources are required and available and how, when, where, and in what amount they should be allocated to meet the objective. In short, the action plan specifies the manner in which the goal will be accomplished.

the action plan is implemented and progress is monitored (through information feedback) to insure timely corrective action can be taken when required. Under MBO, the individual responsible for a particular result has primary responsibility for controlling progress toward accomplishment of that outcome. While that responsibility is, to some lessor extent, shared by the individual's supervisor, the success of MBO depends, in part, on each person recognizing that he/she has primary responsibility for accomplishing the task at hand. In this situation, the role of the supervisor is perhaps more one of a "coach" than a direction-giver in the bureaucratic sense.

To summarize, the MBO process can be generally characterized by the following basic steps:

- Develop a clear and concise statement of the organization's mission;
- (2) Identify key result areas critical to successful mission accomplishment;
 - (3) For each key result area, identify performance

criteria and associated standards by which the organization's effectiveness and efficiency can be periodically measured and assessed;

- (4) When periodic assessment identifies criteria for which current performance is substandard, establish verifiable goals/objectives to remedy the situation;
- (5) For each goal/objective, formulate an action plan designed to achieve the desired outcome within specified time and resource constraints;
- (6) Implement the action plan and when required, take corrective action;
- (7) Periodically evaluate the effectiveness of subordinates in setting verifiable goals, developing appropriate action plans, and controlling the successful implementation of the plan; and
- (8) Implement appropriate management action to reinforce successful performance by subordinates and improve less than satisfactory performance.

These steps are not necessarily definitive, nor are they strictly sequential. However, they do suggest the general pattern of the MBO process.

Advantages and Pitfalls

Before presenting a proposal for a comprehensive MBO system designed to meet the specific needs of AFIT, it is appropriate to point out some of the potential advantages that you can expect - as well as some of the pitfalls to avoid. First,

MBO offers a systematic, structured approach to identifying those areas of performance that are most important to overall organizational health and effectiveness. It can promote the integration, coordination, and orchestration of activity throughout the organization, thereby improving both effectiveness and efficiency and reducing the amount of marginally productive, counterproductive, and misdirected effort. MBO can also promote increased motivation and commitment to the organization's goals and objectives through its emphasis on participative goal setting and accountability, as well as on the linking of personal goals with those of the organization. MBO's emphasis on clearly defined goals and objectives can facilitate prioritization of actions for purposes of resource allocation, and for adjusting operating plans and programs as existing objectives are accomplished and new ones are identified. Finally, MBO offers a more systematic and objective means for assessing the performance, contribution, and initiative of individuals in the organization and for identifying those persons capable of accepting increased responsibility. Equally important, it can help the supervisor identify individuals who require additional professional development, guidance, education, or training. That's the good news.

The bad news is that, while MBO (when properly designed and implemented) has significant potential for improving organizational effectiveness, efficiency, and overall corporate health, the road to a successful MBO program is marked with a number

of potential pitfalls. Perhaps the most commonly encountered problem is the lack of genuine and active interest by top management. When the involvement of senior individuals is relatively superficial or when MBO is installed because it is seen as fashionable or politically expedient, positive results tend to be rather cosmetic and transitory at best. Under such circumstances, MBO is often perceived of as just another irritant to be tolerated until the next in a continuing string of management fads replaces it. The moral of the story here is that if you're not committed to MBO as a basic style and system of management, don't waste your time with it...or the time of subordinate managers who are already busy enough (though not necessarily on truly important matters!). Problems can also emerge when the mechanics, but not the underlying value system and philosophy, of MBO are adopted. Establishing clearly stated and verifiable objectives is a worthwhile goal for any organization. However, when objectives are set without the participation of those individuals who will be held responsible and accountable for their accomplishment, this process is not MBO. MBO is particularly effective with individuals who are inherently self-motivated and have a high need for achievement and autonomy. Consequently, when an "MBO" program is installed primarily as a "club" to increase external control by supervisors, you are not really implementing MBO. In certain situations, e.g., when you are dealing with people who are not very self-motivated and self-directed,

tight external control and close supervision are indeed warranted and necessary. The point is that external control and direction are not inherently bad - they're just not MBO. It should be apparent then, that MBO is not a panacea or some magical management elixir that is equally effective in curing all organizational ailments (despite what some managerial medicine men may pitch). In some cases, MBO is simply the wrong prescription.

An overemphasis on "quantifiable" goals and objectives can also be a problem. It is important that goals be verifiable. However, when this point is overemphasized, there tends to be a corresponding overemphasis on those objectives which can be easily quantified and measured. When this occurs, there is typically an excessive or myopic focus on organizational efficiency and an inadequate emphases on organizational effectiveness. For example, the university which assesses its health by looking only at measures such as numbers of students, numbers of graduates, student/teacher ratios, percent of capacity, and the like is focusing on efficiency. Ideally, there should be a balance between the emphasis on these issues and performance criteria such as the quality of the education provided, e.g., its relevance, currency, and comprehensiveness. While measures of effectiveness are often more difficult to define in strictly quantifiable terms, they are often more important indicators than are the efficiency indicators.

Another very common problem with MBO systems is that they are often embellished with unnecessarily elaborate and cumbersome reporting and control systems. Many otherwise well designed MBO systems have literally suffocated under the weight of their own paperwork. In such cases, the system becomes pathological or cancerous in the sense that people focus on "pencil-whipping" some report, rather than on solving the actual problem the report is designated to highlight. When this occurs, the system has degenerated into an end in itself, rather than an efficient means to an end. Keep the paperwork as simple and convenient as possible. It should serve you - not vice versa. An MBO program can increase, rather than decrease, the time pressure on involved managers if it is simply added to everything else the manager must already do. Ideally, a properly designed and implemented MBO system should reduce time pressures by replacing relatively inefficient and time consuming managerial activities which focus on problems and issues that aren't really important. Where MBO is installed properly (and the intent is a truly comprehensive system), it becomes the basic system and philosophy of management. Consequently, it is superfluous to refer to it as "our MBO program," suggesting that it is something distinct from the basic management system. When an MBO system has been properly installed and is fully operational as an organization's basic approach to management, the label "MBO program" can be - and probably should

be - dropped.

While MBO can be a practical and pragmatic approach to management, it requires the manager to develop and use a set of skills which many have never been required to develop and employ before. Contrary to what one might think, not all managers - nor necessarily those occupying senior positions have developed the ability to recognize and establish truly important performance objectives and to express these clearly and concisely. Further, MBO (when properly implemented) incorporates a less directive, more supportive style of supervision. The supervisor's role becomes one of helping subordinates define verifiable objectives and then supporting them by facilitating their efforts to accomplish those goals. This style of supportive supervision, with the emphasis on delegation, does not necessarily come easily or naturally to many managers. It is in many respects a more difficult and demanding style of supervision, requiring a good deal of maturity and sensitivity on the part of the supervisor. It is often very uncomfortable and frustrating for supervisors who have high needs for achievement, autonomy, and, in particular, power.

It should be recognized that many people may perceive MBO as threatening. While it provides individuals with improved opportunities for increasing the control over their own task environment and organizational destiny, it also holds them

accountable for their actions...and their inactions. Both success and failure are highlighted. Under MBO, showing up for work on time, keeping busy for eight hours, and being perceived as a "good guy," are no longer good enough. For those individuals who, for a variety of reasons, prefer relative anonymity within the organization, MBO provides a rather unwelcome spotlight on their activities (or, more to the point, their inactivities). This perceived threat can be an important element of resistance to implementing a comprehensive MBO program and should not be underestimated.

One of the most common pitfalls encountered on the road to a successful MBO system is attempting to prematurely begin the process of setting goals and objectives without first insuring: (1) Everyone concerned understands the basic concepts and philosophy of MBO, and (2) Experienced managers have developed (or are developing) the skills to recognize and clearly express key performance objectives. Attempting to implement MBO without an appropriate education program often spells defeat for the program before it ever really has a chance to get off the ground. Education is a key if not critical - ingredient to successfully implementing MBO.

Finally, in anticipation of the potential benefits, there seems to be a tendency for organizations contemplating the installation of MBO to want to jump right into the process

of setting goals and objectives without first going through the prerequisite steps of defining the basic mission statement and associated key result areas. Experience (on the part of the author and other MBO consultants) has repeatedly demonstrated that most people in an organization simply do not hold consistent views on either the basic mission or the key areas of performance critical to the success of that mission. You cannot assume that these are self-evident or that everyone sees things as you do. Attempting to set goals and objectives without common understanding of the mission and key result areas is an invitation to failure of the effort. Similarly, attempting to set organizational goals and objectives without some type of model or conceptual framework, based on the mission statement and derivative key result areas, is largely unproductive and inefficient. The process of setting goals and objectives should not - and need not - be a loosely ccordinated random generation or brainstorming of ideas. Under a good MBO system, goals and objectives are the product of systematically establishing operationally defined performance criteria and associated standards using a conceptual framework, derived from the mission statement, as a guide.

Despite these potential pitfalls, the potential benefits of MBO remain attractive. Its popularity stems from experience which suggests that in the appropriate situation and when properly designed and installed, it is a straightforward,

common sense approach to management that gets results.

Definitions and Terms

At this point there may be some confusion about the "language of MBO." What specifically is the distinction between a "goal," an "objective," a "target," "performance criteria," "performance standards," etc. These terms are commonly used in the literature on MBO, often inconsistently. For example, a number of writers use the terms "goal" and "objective" synonymously, while others offer specific, albiet somewhat arbitrary, distinctions. For purposes of clarity and internal consistency, the following definitions are used in this proposal:

- (1) Mission Statement: A clear and concise expression of the primary purpose or purposes for which the organization exists. The mission statement should describe what goods and/or services are provided and for whom they are intended. In other words, the mission statement should express what need or requirement in the general social environment the organization intends to serve.
- (2) Key Result Area: An area of organizational activity considered to be vital to successful accomplishment of the organization's mission. Key result areas may include services to be provided, functions to be accomplished (internally), or markets/customers to be served.
- (3) <u>Performance Criterion</u>: An operational definition or scale of measurement used to assess some dimension or

characteristic condition of the organization which is considered important. In commercial enterprises, for example, sales, profit, return on investment, growth, and net worth are commonly used performance criteria or dimensions along which the health of the organization is assessed.

- (4) Performance Standard: A value associated with a particular performance criterion or measure that is considered (by the responsible manager or agency) as acceptable or "good enough." For example, in organizations concerned with production activities, product quality as measured in unit rejection/failure rate is a common performance criterion. If management considers a 2% rejection/failure rate as acceptable, the 2% value is the performance standard.
- organization, as operationally defined by a particular performance criterion, which is different from the current state or value. Continuing the previous example, if the rejection/failure rate is currently 5% (and the standard is 2%), the goal/objective might be stated as: "To reduce the rejection/failure rate to the 2% standard within six months." The distinction between the term "goal" and "objective" is generally a matter of semantics, often rather arbitrarily defined in terms of scope or degree, and (in the view of this writer) not really important. It is perhaps more convenient to think of a particular desired outcome or result as an objective to the individual manager

directly or primarily responsible for that result and as a goal to individuals subordinate to, or supporting, that manager. In other words, objectives are accomplished at one level to support goals at the (next) higher level. Consequently, whether an outcome is defined as a goal or objective depends on the perspective from which it is being examined.

With this brief introduction to the concept and philosophy of MBO as a foundation, the next section outlines the design of a comprehensive MBO system tailored specifically to the needs of AFIT. A more complete description of MBO is available in the references included in the bibliography to this report.

SECTION II: A BLUEPRINT FOR MANAGEMENT BY OBJECTIVES IN AFIT

Design Considerations

While it is probably true that most organizations can profit to some extent from a well designed and properly implemented MBO system, there is no evidence to support the hypothesis that there is one best way to manage by objectives. On the contrary, successful MBO systems are generally tailored to meet the specific needs and characteristics of the organization in which they are installed. In particular, a successful MBO system should feel "comfortable" to management and be consistent with their personal philosophy and style.

A fundamental premise in architecture states that "form follows function." Before you can properly design a system, you need to have a clear understanding of what you want that system to do. As the architect of an MBO system, you need to begin by asking and answering the question: "Why install MBO in this organization?" "What do I want and expect this system to do for me?" Answering this question takes some open and honest reflection. If, for example, MBO is being installed primarily in response to the direction and desire of some higher level of management, i.e., it is principally a political expedient, and is not being introduced because the people involved are truly committed to MBO as a basic system of management, then it is perhaps best that a rather superficial system be designed to minimize the disruption

and impact on the organization. On the other hand, if the philosophy and concepts of MBO are truly compatible and consistent with those of the individuals responsible for managing an organization, then a more in-depth and comprehensive design should be considered. In other words, you need to decide whether you want MBO to simply "fill a square" - and the realities of organizational life are such that some squares need to be filled - or, alternatively, you want to introduce MBO because it really does make sense to you as a philosophy, process, and system of management.

In the previous section, it was suggested that MBO can, at least potentially, improve planning, coordination, control, motivation, communication, and subordinate performance evaluation and development. Yet, there is no requirement that a particular MBO system attempt to attack all of these targets of opportunity. Many MBO systems focus primarily on planning, while others are implemented primarily for performance evaluation. Further, there is no inherent requirement that an MBO system permiate an organization. A common design, particularly among organizations which are initially somewhat skeptical about MBO, is to implement it in only one division or, alternatively, down through only one level of management until the system proves itself.

The design described in this section proposes a comprehensive system designed to include planning, coordination, control,

performance evaluation, and other features outlined in Section I: It proposes an Institute-wide intervention, from top to bottom. If a less comprehensive system is desired, then it is appropriate and necessary that this proposal be modified accordingly. The principal purpose of the design proposed here is to serve as a vehicle for discussion and a mechanism for use in developing the final design of an AFIT MBO/management system.

The Mission Statement

Ideally, the design process begins with the development of a clear and concise statement of the mission or basic purpose of AFIT. Contrary to what one might think, experience suggests that many people in an organization simply do not agree or hold consistent views on what the basic mission of the organization is or on what it should be. Unless the principal actors have a common understanding of the basic purpose, i.e., the goods and services to be provided and the specific markets to be served, it is generally a waste of time to attempt to set or define performance criteria, standards, and related goals/objectives. (ASIDE: If you are skeptical about this, ask your immediate subordinates to independently write down their own interpretation of AFIT's mission and then compare the results). You should not assume that everyone shares the same view that you do.

In the view of many people, the mission statement is, de facto,

a piece of paper to blow the dust off of once a year to see if what is actually being done bears any resemblance to what someone once thought was supposed to be done. That fact is that the mission of an organization, like any system, is what that organization actually does, not necessarily what it says. Considering this, the mission statement, to be of any real value, needs to be a "living" document that continually reflects how we see ourselves and how we want others to see us. It is, or should be, an explicit statement of our corporate value system. From an internal perspective, it is probably true that the real value of the mission statement lies as much in the process of its development, as in the resulting product. A periodic comparison of notes can help insure that everyone understands what business we are in. Such interaction also often helps define what business we should be in. For example, should AFIT continue in its presently defined role and continue to serve its "traditional" markets or, alternatively, should it move toward an expanded role of the Air Force's single manager for education? While questions such as this cannot and should not be considered unilaterally by AFIT management, i.e., without interaction with AU, ATC, and other concerned agencies, they do need to be considered when reassessing the organization's mission.

Again ideally, AFIT's mission statement should be derived from, and support, a current and realistic AU mission statement. A current draft revision to ATCR 23-26, "Directory

and Mission Directives of Air Training Command Organizations," outlines the mission of AU as follows:

- Prepare officers for command of, and staff duties in, all types of Air Force organizations and joint combined commands.
- Prepare selected noncommissioned officers to better fulfill their leadership and management responsibilities.
- 3. Provide education to meet Air Force requirements in designated professional areas.
- Conduct precommissioning programs at civilian education institutions.
- Assist in developing Air Force doctrine, concepts, and strategy.
- 6. Conduct the liaison function for supporting special Air Force programs and organizations.

AFIT's mission statement should reflect the manner in which it proposes to support and contribute to accomplishment of the AU mission. The current mission, as stated in the 1978-1979 AFIT Catalog reads:

The mission of the Air Force Institute of Technology is to plan, organize, conduct, and administer degree-granting and continuing education programs in engineering, systems and logistics, civil engineering, management, medicine, and other fields at Wright-Patterson Air Force Base (WPAFB) Ohio, at other sites, and through contracts with civilian educational and health care institutions and industrial organizations in response to United States Air Force (USAF) and Department of Defense Requirements.

A well written mission statement should, at the very least, reflect the important services AFIT intends to provide and the markets or specific customers it intends to serve. As

 $^{^{}m 1}$ Furnished by AFIT/MET on 22 Aug 79

a matter of flavor, it might also infer to the reader the relative emphasis placed on various programs and activities and the general manner in which services are to be provided. In assessing the current and continuing validity of the present mission statement, one needs to consider whether (or not) it accurately reflects what we do...and to whom. For example, are the <u>research</u> and <u>consulting</u> activities conducted by AFIT important enough (in terms of resource consumption, service to our customers, political significance, etc.) to warrant their inclusion in the mission statement? If so, the mission statement might be rewritten as:

The primary mission of the Air Force Institute of Technology (AFIT) is to develop, conduct, and administer degree-granting and professional continuing technical education programs in engineering, logistics management, systems management, civil engineering, medicine, and other fields in support of Air Force and Department of Defense (DOD) requirements. In addition, AFIT conducts research and provides both technical and managerial consulting services to assist various Air Force and DOD agencies.

This alternative, while not offered as definitive, declares that while our principal product is technical education, accomplishing research and providing consulting services are also important elements of our basic charter, elements which are not totally ancillary to the educational role, and elements for which it is entirely appropriate to acquire and expend resources.

If properly constructed, the AFIT mission statement should:

Identify key services to be provided;

- 2. Identify specific markets to be served;
- 3. Provide direction for developing more specific mission statements for each principal organizational element (e.g., CI, DE, EN, LS, etc.) and suggest the possible need for organization redesign; and
- 4. Identify those key result areas in which effective and efficient performance is particularly important to AFIT's success and continued viability.

The Conceptual Framework

In Section I, it was suggested that design of an MBO system for an organization should be based on a conceptual model of that organization which provides a framework for identifying key performance/result areas, associated performance criteria and related standards, and, subsequently, goals or objectives. Attempting to set goals/objectives without the aid of such a framework generally results in a good deal of wasted motion and, at best, a set or collection of rather loosely related goals, rather than a system of closely coordinated and directed components. The basis for such a framework is the mission statement.

One logical and important dimension for describing the nature of any system is the output of that system to its environment, i.e., the <u>products/services</u> it provides in response to the perceived demands of those markets or customers for which the organization exists to serve. In the case of AFIT, the

proposed mission statement identifies three basic services:

(1) technical education, (2) research, and (3) consulting.

If the system designer assumes that the basic structure of the organization is a given, then this structure (i.e., organizational elements) becomes a second important dimension of the model. In this regard, it should be emphasized that the complete structure of the organization includes not only those officially designated schools, directorates, offices, divisions, branches, detachments, and the like, but also other important enfranchized groups such as the Institute Council, the Commandant's Faculty Advisory Committee, and the Faculty Senate. Each of these designated and enfranchized components of the AFIT structure is a candidate for defining and accomplishing goals and objectives in support of the basic mission.

Regardless of their respective missions, all organizations must perform a number of critical <u>functions/activities</u> to survive and remain viable. While the exact nature of the activities composing these basic functions will vary between organizations, each basic function must be accomplished to some degree and in some fashion. Most organizational scientists identify the following basic functions as critical:

1. Operations (Production)

The Operations or Production function includes all activities

directly related to converting input "raw materials" to output goods and services. In the case of AFIT, this function would include all activities related directly to educating students, accomplishing research, and providing consulting services. For example, course preparation, course presentation, and student evaluation might be considered Operations/Production activities because they are directly concerned with converting students (the raw materials) into graduates (output), i.e., these activities are directly concerned with the process of equipping students with additional concepts, techniques, skills, and application experiences. Similarly, activities directly related to accomplishing research or providing consulting services are also a part of AFIT's Operations/Production function.

2. Support (Input-Output)

The Support function comprises all those tasks and activities concerned with the procurement or acquisition of input raw materials (e.g., students, research topics, consulting requests, etc.) and the distribution of products/services (e.g., graduates, research reports and briefings, consulting reports, etc.). In AFIT, the Support function would include activities related to marketing of our various programs and services, identification of specific students to attend courses and programs, distribution of research publications and briefing the results of various research projects to

concerned individuals and agencies, and activities concerned with the reassignment of graduates.

3. Maintenance

The maintenance function includes activities accomplished to maintain the smooth and efficient operation of the organization and in particular, to facilitate Operations/Production activities. Important maintenance functions include personnel management (particularly the recruitment, assessment, reward, and development of faculty and key staff), administrative support, resource management, student operations, facilities and equipment, library services, computer services, etc. The development of operating policies and procedures and the design of certain reward/incentive programs are also commonly considered as maintenance activities.

4. Adaptation

This function encompasses all those activities concerned with assessing the changing nature of the environment in which the system operates (including general economic, technological, social, political, legal, and educational environmental conditions, as well as the changing characteristics and requirements of customers, competitors, and suppliers). In addition, this function includes activities and tasks directed at developing and implementing plans to either adapt the organization to changing environmental conditions or to influence changes in the environment that

complement the organization as it currently exists and operates. For example, adaptation activities might include the evaluation of our courses and curricula by students, faculty, "client" agencies, and the AU Board of Visitors. In addition, activities designed to assess the need for new programs (e.g., Space Operations, Transportation, etc.) and services are also a part of this function.

5. Management

The Management function is concerned, in general, with decision and control processes. The activities accomplished under this function focus on the coordination, regulation, and general orchestration of all other activities. Management activities are concerned with changes in the basic mission, services, organizational structure, and priority of resource allocation. They also include activities focusing on conflict resolution, design of internal communication and decision support (information flow) systems and supervision, motivation, and support of subordinates.

It should be evident that the degree of involvement in these various functions will vary with the respective responsibilities of specific units and individuals within the organization. The Commandant, for example, is likely to spend the majority of his time with management and adaptive activities. Conversely, it is unlikely that he would spend much time with the Operations function, i.e., in actually teaching, doing

research, or consulting. An organizational element such as Education Plans and Operations (ED) spends much of its time involved with the Adaptive and Maintenance functions. However, the Director of this unit, as an individual, will probably spend most of his time in management activities. Individual faculty members will generally spend the majority of their time in the Operations function, i.e., in teaching, doing and directing research, and/or consulting. In short, each unit in the organization and, more basically, each individual within AFIT has a unique profile or distribution with respect to the amount of time and emphasis devoted to these respective functions.

Figure 1 illustrates a general conceptual model or framework which integrates the basic services, structural components, and functions of AFIT. This framework should not be interpreted as definitive or all-inclusive. It is offered as a general guide to help identify important key result areas and to facilitate the definition of associated performance criteria, standards, and goals/objectives in a systematic fashion. In addition, the framework can assist individuals in clarifying, defining, and understanding how they relate to one another with respect to certain functional activities and services. From the perspective of individual organizational (structural) units, this three-dimensional matrix "collapses" down to the two-dimensional framework illustrated

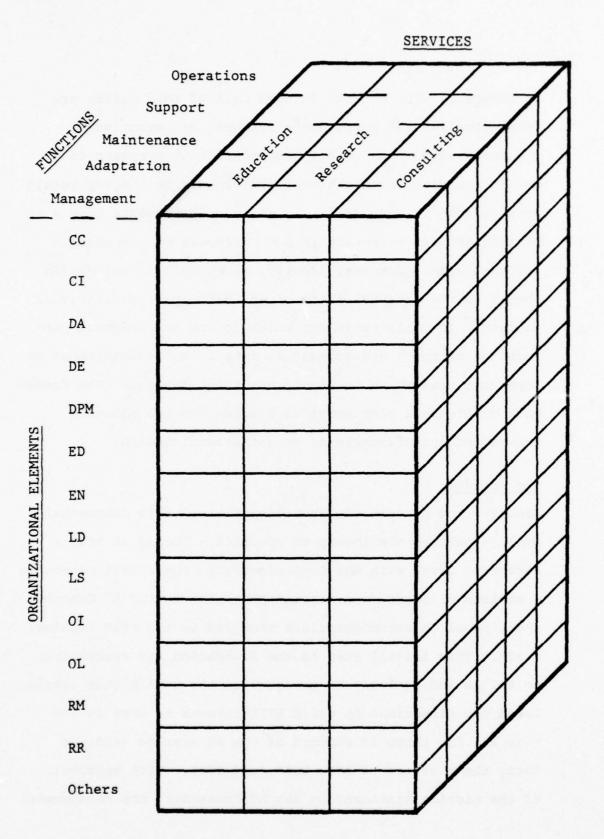


Figure 1: General Conceptual Framework

in Figure 2. The entries in each cell of this matrix are (conceptually) the performance criteria and associated standards which that agency (or individual) proposes to use in managing organizational performance in the key result area defined by that cell. An empty cell suggests that a particular unit or person is not concerned or responsible for that area. However, ideally, every cell in the matrix should be the responsibility of at least one organizational element. If cells exist for which no one has proposed performance criteria and standards, this is an indication of an important area which is simply not being managed. The framework of Figure 2 also provides a guide for the periodic assessment and diagnosis of organizational health.

The Process

Ideally, the process of "operationalizing" this conceptual model - putting the theory to practice - begins at AFIT's strategic level with the Commandant/Vice Commandant proposing a revised or reaffirmed mission statement to the AU Commandant, based on recommendations provided by the AFIT (senior) staff. This initial step is the foundation for everything to follow and declares to managers at the next higher system level the directions in which AFIT intends to move in the near and far terms in support of the AU mission (and, in turn, the missions of ATC, USAF, and DOD). With approval of the mission statement by the AU Commander, the recommended

ORGA	ANIZATIONAL		SERVIO	CES	
	ÆNT:	EDUC	ATION	RESEARCH	CONSULTING
		Degree- Granting	Professional Continuing	KLOLAKOII	CONSCITING
	Operations				
	Support				
FUNCTIONS	Maintenance				
	Adaptation				
	Management				

Figure 2: Conceptual Framework Used By Each Organizational Element

conceptual framework can be developed/modified as appropriate. Using the framework as a guide, and again considering the inputs and recommendations of the AFIT staff, the Commandant/Vice Commandant define those performance criteria and associated standards which they propose to use - as individuals - to assess AFIT's overall effectiveness and efficiency. Then, using these stipulated criteria and standards to evaluate AFIT's current state of health, strategic goals and objectives are proposed for those key result areas in which performance is not currently up to par. After indorsement by the AU corporate management, these criteria, standards, and goals/objectives become the basis for reiteration of the process at the tactical level, i.e., at the school, directorate, and office level (AFIT senior staff level). More specifically, the respective deans and directors, considering recommendations of their staffs, propose performance criteria, standards, and goals/objectives to support those of the Commandant/Vice Commandant.

This iterative process continues until (ideally) each faculty and staff individual has been included. At the "lowest" level in the hierarchy, each faculty/key staff member has proposed to his supervisor (department chief, branch chief, etc.) those goals/objectives which he or she intends to accomplish in support of the goals/objectives to which the supervisor has committed. This proposal, when accepted by

the supervisor, becomes the basis for employee evaluation during the next rating cycle. The result of this process is the linked hierarchy of goals/objectives illustrated in Figure 3. Once the system has been completely installed, it continues to operate with periodic reassessment of organizational performance using the established criteria and new/revised criteria and/or standards as they are proposed.

Performance Contracting and Evaluation

An important and inherent feature of comprehensive MBO systems is that they offer a more objective basis for employee performance appraisal and reward. When a supervisor and subordinate reach agreement on the objectives (initially proposed by the subordinate) to be pursued by the subordinate during the next rating period, they have, in effect, established a contract. In this context, the subordinate agrees to accomplish certain tasks and objectives for which he or she will be given a specified consideration. As in any contract, under an MBO "performance contract", the parties involved agree on what services are to be provided by the subordinate and what consideration or reward is to be given by the supervisor for satisfactory performance. In other words, under the proposed MBC system, the supervisor and subordinate should agree (ideally) at the beginning of a rating period what specific objectives must be accomplished

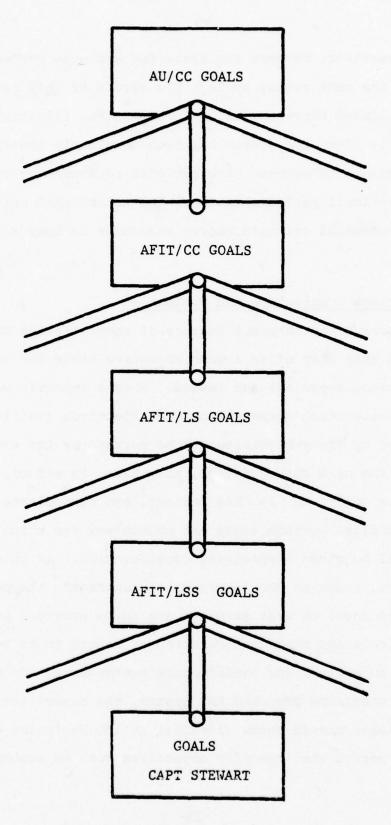


Figure 3: AFIT Goal Structure -36-

and what level of performance on specified tasks is required, for example, to get a "l" rating on the OER, to be recommended for the Commandant's indorsement, to be recommended for promotion in academic rank, or, in the case of civilians, rewards such as Sustained Superior Performance, Quality Step Increase, or an Outstanding Performance Report. By knowing ahead of time what level of performance and effort is expected during the rating period for specific rewards and consideration, each employee has (at least theoretically) more control over his own "fate." At the same time, the supervisor has a more objective basis for evaluation and reward. Performance contracting is a popular feature of many successful MBO systems because it is at least perceived to minimize the distasteful "politics" commonly found in more subjective approaches to performance appraisal.

In some MBO system designs, the supervisor and subordinate also agree at the time a subordinate becomes responsible for a particular objective the frequency with which progress will be reviewed with the supervisor. In all MBO systems, general supervisor-subordinate progress reviews or "coaching sessions" should be held at least quarterly during an annual rating cycle to insure both parties are in agreement as to where the subordinate stands with respect to his/her performance contract. Of course, other progress reviews should be held when required.

The Management Information System

The design of any comprehensive management system should include consideration of the information system required to support managerial decision and control processes. A management information system (MIS), in the broadest sense, includes all those activities, processes, and technologies concerned with the acquisition, storage, manipulation, retrieval, and distribution of data/information required by particular individuals within the organization. In most MBO systems, the supporting MIS is manual, i.e., the primary media for storage, retrieval, and distribution of information is a simple, specially designed form. 1 Many such forms are in use and readily available. For example, ATC Form 1275, "Objective/Programming Status Report," included as Figure 4, is used to support the ATC command MBO program. A somewhat more convenient variation (locally developed) is illustrated in Figure 5 (see both sides). Several examples of completed "Management Objectives Guides" are included in Appendix A. A single well-designed form is the only paperwork necessary to support an efficient MBO system. This form provides a convenient vehicle for describing the objective and its relative importance, for planning the actions necessary to

¹In some more sophisticated systems, the MIS is automated to provide computer-generated reports and analyses. This feature is appropriate in those organizations where access to computer terminals is convenient and everyone - including top management - is comfortable with their use.

	OBJEC	TIVE/PRO	OGR AMA	MING	STATI	JS RE	PORT				
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FUNCTIONAL											
OBJECTIVE											
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COMMENTS/PROBLEMS	, — —							 			
			w 4								
			Figu	39-	•						

ATC FORM 1275

	MANAGEMENT OBJ	ECTIVE GUID	3	
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PERFORMANCE CRITERION	NO.:			
Standard: Frequency of Assessmen	nt:			
OBJECTIVE NO.:				Cin. (1)
				1/43
COMPLETION DATE: RESI	PONSIBLE INDIVIDUAL:		OFFICE:	TELEPHONE:
IN COORDINATION WITH:				
BACKGROUND/JUSTIFICATI	ION/SOURCES:			
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N.																
ACTION PLAN																
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		NO.		+	-				41							

accomplish the objective, for communicating current status to other concerned individuals, for documenting completed objectives, and for performance contracting with subordinates.

One important ingredient in the long term success of any MBO system is the manner in which these forms or guides are prepared and used. To reiterate a point emphasized in Section I, the paperwork exists to serve the people - not the other way around. The specific format and level of detail in which the forms are prepared are considerations generally best left up to each individual. For example, some objectives are relatively straightforward and require little, if any, formal planning. In such cases, there is no real need to develop a time-phased management action plan. In other cases, e.g., the development of a new course or curriculum, a more detailed plan, including time-phased milestones, etc., would probably be necessary. However, since the primary purpose of the form is to assist the individual responsible for completing the objective, that person should determine the format and level of detail required. Also, there is no requirement that forms be typed. In fact, one of the principal advantages of the objective guide illustrated in Figure 5 is that it is designed to be completed either by hand or with a typewriter - depending on the personal preference of the user.

There is another point to emphasize about the management

objective guide or MBO form. If properly designed, it should be flexible enough to efficiently support the variety of uses described in the foregoing discussion. In addition, this form should permit the use of a number of other forms or different types of correspondence (e.g., memos, background papers, point papers, staff summary sheets, etc.) to be reduced or eliminated. The MBO guide should not simply be considered as another form to be added to the existing inventory without at least considering it as a replacement for others.

When the MBO system has been completely installed and is operational, each individual should have a copy of active MBO guides for which he/she is responsible and currently under contract. The individual should also retain the guides for objectives completed during the current performance rating period. In addition, forms for completed objectives should, at the discretion of the individual, be retained as long as they are useful for historical or reference purposes. Each supervisor should also keep copies of active MBO contract forms (objective guides) for each subordinate, as well as forms for objectives completed by the subordinate during his/her current rating period.

Periodically, usually not less than quarterly and as often as necessary, each supervisor should insure that all subordinates have an opportunity to review progress on all objectives being pursued by the unit. This can be accomplished through a staff (progress review) meeting at which individuals present the current status on objectives for which they are responsible and answer any questions from their associates. Alternatively, the supervisor might elect to circulate a notebook containing updated management objective guides for review by all subordinates. Such periodic reviews are designed to promote internal communication and coordination and are an essential part of the MIS supporting the MBO system.

Conclusion

It seems appropriate to conclude this section by reiterating the point made at the beginning of this discussion: there is no one best MBO system. The design recommendations offered here should be modified, as necessary, to meet the specific and changing needs of those managers the system is intended to serve. In the next section, an example is presented to illustrate the application of some of the concepts previously discussed and to suggest a general management action plan for implementing the suggested comprehensive MBO system in AFIT.

SECTION III: IMPLEMENTING MBO IN AFIT

The final section of this report presents an example designed to illustrate some of the concepts described in the preceeding sections. The example describes the development of a management objective and associated action plan to design and install a comprehensive MBO system throughout AFIT. Because this objective is "strategic" in nature, i.e., it will potentially have a significant permanent effect on the organization as a whole and its mission effectiveness, the Commandant is identified in this example as the individual having primary responsibility for accomplishing the objective.

Example

Ideally, the process begins when the Commandant, using the conceptual framework presented in Section II as a guide, recognizes that the existence of a comprehensive management system is important to AFIT's overall effectiveness and efficiency in meeting the technical education, research, and consulting needs of its people. At this point, a management objective guide can be initiated to reflect this key result area and performance criterion, as illustrated in Figure 6. Note that the guide also reflects the Commandant's assessment that such a comprehensive system of management does not currently exist in AFIT. At this point then, the objective guide identifies the Management function, in general, as the key result area of interest. It also suggests that

MANAGEMENT OBJECTIVE GUI	DE	
KEY RESULT AREA/GOAL NO.:		
Management Function - General		
PERFORMANCE CRITERION NO.:		
The existence of a comprehensive management	system	
Standard: Operational system installed throu	ghout AFIT	
Frequency of Assessment: Annually		
OBJECTIVE NO.:		
AND THE PROPERTY OF THE PROPER		
COMPLETION DATE: RESPONSIBLE INDIVIDUAL:	OFFICE:	TELEPHONE:
Major General Gerald E. Cook	e AFIT/CC	52321
IN COORDINATION WITH:		
BACKGROUND/JUSTIFICATION/SOURCES:		
STATUS/COMMENTS: 1. (1 Sep 79) No comprehensive system of m	anagement gur	ontly oviete
1. (1 Sep /9) No comprehensive system of m	anagement curr	encry exists.
APPROVED BY:	OFFICE:	DATE:
Figure 6		
-46-		

the Commandant will accept as one measure of satisfactory performance in this key result area the existence of a comprehensive management system designed to meet AFIT's specific management needs.

As a result of his assessment, the Commandant has concluded that AFIT's management is not currently up to par in the sense that a comprehensive management system does not now exist. As a result of this perceived deficiency, the Commandant prescribes the objective shown in Figure 7. In addition, other pertinent information has been included on the form.

Once the objective has been stated in a clear, concise fashion, a management action plan can be developed that is designed to accomplish the objective within applicable resource constraints. The proposed plan is briefly outlined on the reverse side of the management objective guide as shown in Figure 8. The action plan has been organized into two general phases. In the System Design phase, an initial proposal/design (this report) is developed and submitted to the Commandant for review and comment. In this review, the Commandant determines if the initial design is generally appropriate (e.g., whether it is comprehensive and detailed enough or whether it is too comprehensive and ambitious). The initial design is subsequently modified, as necessary, to incorporate the recommendations of the Commandant and the program is presented

MANAGEMENT OBJECTIVE GUID	E	
KEY RESULT AREA/GOAL NO.:		
Management Function - General		
PERFORMANCE CRITERION NO.:		
The existence of a comprehensive management	system	
Standard: Operational system installed through	out AFIT	
Frequency of Assessment: Annually		
OBJECTIVE NO.:	3 40 11	annal fil =
To design a comprehensive MBO system tailore		The state of the s
management needs of AFIT and completely inst	all the syste	m throughout
the organization by April 1980		
COMPLETION DATE: RESPONSIBLE INDIVIDUAL:	OFFICE:	TELEPHONE:
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April 1980 Major General Gerald E. Cooke	AFIT/CC	52321
IN COORDINATION WITH:		
AU/ED	 	
WIT Staff		
BACKGROUND/JUSTIFICATION/SOURCES: This objective		
AFIT's management and to support the AU and	ATC MBO progr	ams (AUR
25-1 and ATCP 25-4)		
Resource People: Capt Stewart/LSS/54549		
STATUS/COMMENTS: 1. (1 Sep 79) No comprehensive system of man	agement curre	ntly exists.
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to the AFIT staff for their review, comments, and questions. It is important that the staff be given an adequate opportunity to become familiar with both the basic concepts of MBO and the specific program being contemplated for AFIT. The importance of this education and motivation step to the overall success of the effort cannot be overemphasized. Specifically, the senior staff people must clearly understand the degree to which the Commandant is committed to achieving this objective and what their respective roles/responsibilities will be in designing and installing the proposed MBO system.

With this baseline established, the Commandant and AFIT staff work together to develop the final system design and the associated plan for its installation. During the final design, the AFIT mission statement is revised or reaffirmed, with specific consideration being given to clearly stating the services to be provided and the markets to be served. Using this mission statement as a guide, a conceptual framework is developed in detail to identify the key result areas requiring specific management attention. The final system design also includes consideration of the supporting management information system to be used. Finally, the plan for installing the system in AFIT is developed in detail.

The System Installation phase begins with a presentation of the program to the faculty and staff. Because of the

numbers of people involved, it will probably be necessary to present the program individually to each school or directorate. This initial presentation is followed by a general education program in which each individual in the organization is given the opportunity to become familiar with the details of the program, how they will participate, and how they can expect to be affected by the system. This education program should include small group (department, branch, etc.) question and answer sessions.

When the final system design has been completed, the Commandant, with assistance of the AFIT staff, develops performance criteria and associated standards which he proposes to use to assess corporate health at the strategic or Institute level. Using these criteria and standards, the Commandant assesses the current state of affairs and proposes specific goals and objectives which collectively serve to operationally define AFIT's course in the near and far terms. This strategic program is then presented to AU/CC by the Commandant.

With the indorsement of AFIT's corporate strategy by AU/CC, the second iteration of the process begins. Using the conceptual framework and the goals/objectives to which the Commandant has committed the Institute as a guide, the AFIT staff (deans, directors, etc.), assisted by inputs from their respective staffs (i.e., their department chiefs,

division chiefs, etc.), develop performance criteria and standards which they will use to assess the effectiveness of their organizations in supporting the AFIT mission in general and the Commandant's objectives in particular. Again, these criteria and standards are applied to identify specific goals/objectives.

This iterative process continues until each individual in the organization has established a performance contract with his/ her supervisor concerning the goals/objectives to be accomplished. Essentially, this completes the initial installation of the system. At that time, each individual should have a clearer understanding of where the Institute is heading and what role he or she plays in that effort. In addition, each individual should also have a clearer understanding of what the organization expects from him/her and, in turn, what he/she can expect from the organization. Finally, if the system has been properly designed and implemented, each individual should truly believe that he/she has been given a meaningful opportunity to influence the nature of his/her own task environment and those activities for which he/she will be held responsible and accountable.

Conclusion

This report has attempted to outline the basic concepts and features of a comprehensive MBC system designed to meet the specific needs of those individuals responsible for managing

AFIT's activities and for accomplishing AFIT's basic mission. A central theme in this discussion is that there is no one best way to manage in general, or manage by objectives in particular. With this in mind, the principal objective of this report is to serve as a catalyst to more conscious reflection on the potential benefits and pitfalls of MBO as a basic system of management. MBO is not a "cookbook" approach to management or "management by the numbers." However, when properly designed and installed, a comprehensive MBO system can assist otherwise competent, creative, and motivated managers to get results.

BIBLIOGRAPHY

- Batten, J. D., Beyond Management By Objectives, (American Management Association, 1966)
- 2. Beck, A. C. and E. D. Hillman, A Practical Approach to Organization Development Through MBO. Selected Readings, (Addison-Wesley, 1972)
- Carroll, S. J., and H. L. Tosi, Jr., Management By Objectives: Applications and Research, (Macmillan, 1973)
- 4. Drucker, P. F., The Practice of Management, (Harper & Row, 1954)
- Humble, J. W., <u>Management By Objectives in Action</u>, (McGraw-Hill, 1970)
- 6. McConkey, D. D., How to Manage By Results, (American Management Association, 1965)
- 7. Morrisey, G. L., Management By Objectives and Results, (Addison-Wesley, 1970)
- Odiorne, G. S., <u>Management Decisions By Objectives</u>, (Prentice-Hall, 1969)
- 9. Raia, A. P., Management By Objectives, (Scott, Foresman, 1974)
- Reddin, W. J., <u>Effective Management By Objectives</u>, (McGraw-Hill, 1971)

APPENDICES

APPENDIX A: SAMPLE MANAGEMENT OBJECTIVE GUIDES

MANAGEMENT (BJECTIVE GUID	E	
KEY RESULT AREA/GOAL NO.:			
OPERATIONS FUNCTION - Graduate Educ	ation		
PERFORMANCE CRITERION NO.:			
Graduate Facilities Management Prog	ram - FM 5.51	: Environment	al and
Energy Systems Analysis Course			
		······································	
Standard: Develop and present course			
Frequency of Assessment: Annually			(2.2
OBJECTIVE NO.:			
To develop and present FM 5.51: Envi	ronmental and	i Energy System	ns Analysis
course to students in the Graduate B	acilities Mar	nagement Progra	am, Class
79A and 79B, (26 Mar - 1 Jun 79)			
COMPLETION DATE: RESPONSIBLE INDIVIDUA	L:	OFFICE:	TELEPHONE:
1 Jun 79 Capt Todd Stewart		AFIT/LSGQ	54845
IN COORDINATION WITH:			
AAC Maj Karnasiewicz/55023	AFESC/DEB	Mai Pease/970	2894
LSGM Lt Col Knipfer/55096	AFLC/DEV	Lt Col Lee	
AFESC/DEV Col Schultz/970-2514	AFLC/DEM	Lt Col Bellar	n .
BACKGROUND/JUSTIFICATION/SOURCES:			
FM 5.51: Environmental and Energy S	Systems Analys	sis is a requir	red course
for all 79A and 79B students in the			
STATUS/COMMENTS:			
1. (25 Mar) Course preparation con	mplete		
2. (1 Jun) Course presentation con			
APPROVED BY:		OFFICE:	DATE:
Lt Col. Engel	• 3 • 1 ·	AFIT/LSGQ	1 Mar 79
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	TASKS	PERIOD		26 Mar-1Jun	1Jun 79	-							
NO.	DESCRIPTION	WEEK:		-	2	3	=	5	9	7	8	6	10
1. Be	Ravise Course Description	XXXXXX											
8	and Objectives												
2. Se	Select & order textbook	XXXXX											
3e A 9	Academic Affairs approval	×	×							1			
4.	Contact guest speakers		XXXXX										
Se De	Develop revised lesson plans	XXXXX XXXXX	XXXXX										
6. Co	Course Intro. & Overview			×									
2- Fr	Framework for analysis			3									
8. Ec	Ecosystemics			[24									
9e Wa	Water Resources & Uses				2								
10. Wa	Water Pollution				3								
11. Wa	Water Pollution Control				[24								
12. 10	introduction to Air Pollution					X							
13. Ai	Air Pollution Meteorology					3							
14. Ai	Air Pollution Control					(Sea							
15. 50	Solid & Toxio Wastes						X						
16. La	Land Use Management						3						
	Noise & Thermal Pollution						[see						
18. 30	Socioeccnomic Analysis							Σ					
19. En	Environmental Impact Analysis							>					
20. In	Intro. to Energy Systems							[24					
21. AF	AFESC Briefing-Col Schultz								X				
22. En	Energy Consumption								>				
23. Ga	Gas and Coal								F				

REY RESULT AREA/GOAL NO.: PERFORMANCE CRITERION NO.: Standard: Frequency of Assessment: OBJECTIVE NO.: COMPLETION DATE: RESPONSIBLE INDIVIDUAL: OFFICE: TELEPHONE: IN COORDINATION WITH: BACKGROUND/JUSTIFICATION/SOURCES: STATUS/COMMENTS: Management action plan continued on reverse side APPROVED BY: OFFICE: DATE:		MANAGEMENT OBJ	ECTIVE GUIDE		
Standard: Frequency of Assessment: OBJECTIVE NO.: COMPLETION DATE: RESPONSIBLE INDIVIDUAL: OFFICE: TELEPHONE: IN COORDINATION WITH: BACKGROUND/JUSTIFICATION/SOURCES: STATUS/COMMENTS: Management action plan continued on reverse side	KEY RESULT AREA/G	OAL NO.:			
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AFESC Briefing-Maj Pease Suamary & Course Evaluation
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MANAGEMENT OBJECTIVE GU	IDE	
KEY RESULT AREA/GOAL NO.:		
ADAPTATION FUNCTION - Educ	action & Res	earch.
PERFORMANCE CRITERION NO.:		
Review of the Graduate Facilities	s Managem	ent
Program with (Air Staff) perso	mnel at the	Air Force
Engineering and Services Center (A)	FESC), Tyndd	WAFB.
Standard: Andually Frequency of Assessment: Annually		
OBJECTIVE NO.:		
	ent/future	direction
To visit AFESC and discuss curre of the Graduate Facilities Manag	emint Prog	iam
completion date: RESPONSIBLE INDIVIDUAL: 22 Mar 79 Capt Todd Stewart	OFFICE:	TELEPHONE: 54845
IN COORDINATION WITH:		
ISGM Lt Cal Knipfer		
AFESC/DEM L+ Cal Giandolfi		
BACKGROUND/JUSTIFICATION/SOURCES:		× 92
Required to insure the Graduate	Facilities M	anagement
Program continues to meet the need		110
Engineering community.		
CTATUS / COMMENTS .		
STATUS/COMMENTS: 1. (22 Man 79) Complete. Visited AFE	SC 19-22 Ma	179
DISCUSSED GEM GROGIAM with CV	1 - 1	dwith
each of the directors. They gene	nally believed	our pro-
gram for the 1980 Class was "on	target." It	uy indicat-
for chief would try to support all	Schulte (DAV) and
Major Peas (DER) to address to	to Energy as	of Eminon
ment Course.		
APPROVED BY:	OFFICE:	DATE:
Lt Col Edwards	AFIT/LSGQ	1110419

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MANAGEMENT	OD:															
	PERIOD:															
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	MANAGEMENT OBJ	ECTIVE GUIDE		
KEY RESULT	AREA/GOAL NO.:			
SUPPORT F	UNCTION - Graduate Education	Programs		Lazar-
PERFORMANCE	CRITERION NO.:			
In-proces	sing and orientation of new	graduate st	udents and spo	uses
Ch				
	evelop and conduct in-proces f Assessment. new class.	sing & orie	ntation progra	m for each
OBJECTIVE N	i Assessment.			
	op and conduct an in-process	ing and and	ontotion	on for
	s of 1980, Graduate Manageme		entation progr	am Ior
COMPLETION			OFFICE:	TELEPHONE:
25 June 7	9 Captain Todd Stewart		AFIT/LSGQ	54845
IN COORDINA	TION WITH:			
LS	Col Israelitt/55361	Academic P	rogram Coordin	ators
LSA	Capt Musselman/56857	AFIT/DPMUM	TSgt Michels	
Departmen	t Chiefs	AFIT/LSCO	Mr Lampe/563	35
BACKGROUND/	JUSTIFICATION/SOURCES:			
The progr	am is required to facilitate	the transi	tion of new st	udents and
their fam	ilies into their AFIT assign	ment.		
STATUS/COMM				
1. Compl	eted - 25 Jun 79			
APPROVED BY			OFFICE:	DATE:
	Col Lewis M Israelitt		AFIT/LS	1 Feb 79

TASI Review and u for "Welcome Reerve requ Room 104-107 0-Club Ballr Room 320-322 Develop revi upon receipt Upon receipt Develop hand tion program Rion program Clebreaker (Develop agen Orientation Orientation Conduct Wive (25 Jun)	MANAGEMENT ACTION PLAN	DESCRIPTION JAN FEB MAR APR JIN	undouts KXXXXXXXXXXXXXXXX	for "Welcome" package	Reserve required facilities:	Room 104-107 (12 & 25 Jun) KX	O-Club Ballroom (12 Jun) XX	Room 320-322 (12 Jun) . (X	Develop revised orientation	program agenda & coordinate	Mail out welcome packages CXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	upon receipt of names from RR	Develop hundouts for orienta-	tion program	Plan Icebreaker XXXXXX	In. Processing (DPMUM-6 Jun)	Orientation Program (12 Jun) X	Icebreaker (12 Jun)	Develop agenda for Wives' XXXXXX	Orientation Program	Conduct Wives' Orientation X	Jun)					
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MANAGEMENT OBJECTIVE	E GUIDE
KEY RESULT AREA/GOAL NO.:	
SUPPORT FUNCTION - Progra	im Marketing
PERFORMANCE CRITERION NO.:	- : /: /:
Marketing of the Graduate For Programs to new Civil Engineering Base Civil Engineering Course (MG)	acilities Management ing officers attending the
Standard: Brief each class of MG	0-001) GT-001 during the year.
Frequency of Assessment: Annually	0 /
OBJECTIVE NO.: To brief students attending Cla	IN 79-C of the Book Civil
Engineering Course (MGT-901) a	on the Graduate Facilities
Management Program offered by	the School of Systems and
CONFLETION DATE: RESPONSIBLE INDIVIDUAL:	OFFICE: TELEPHONE:
13 Jul 79 Capt Todd Stewart	
IN COORDINATION WITH:	
LSM It Col Knipfer	
DEM Capt Baker 154552	
BACKGROUND/JUSTIFICATION/SOURCES: All new of	Fices entering the Civil
Engineering coreer field attend the	
at the School of Civil Engineering, no	11 . 1 . 1 . 1 . 1 . 1
year of active duty. This is an Oexce	
The Graduate Facilities Managem	ment Program.
STATUS/COMMENTS:	
1. (13 Jul 79) Complete, Brief	fed appear imately 50
students; distributed proc	man prochuses and
answered questions -30 minutes	
7	
APPROVED BY:	AFIT/LSM I Jul 79
Lt Col Knipter	mri / will / will /

MANAGEMENT OBJECTIVE GU	IDE			
KEY RESULT AREA/GOAL NO.:				
MAINTENANCE FUNCTION - FACULTY	DEVELOPME	WT		
PERFORMANCE CRITERION NO.:		/.		
Participation in professional/aca	demic meet	ings		
				
and the second s				
Standard: At least one annually Frequency of Assessment: Annually				
OBJECTIVE NO.:				
	f Managem	ent		
To attend the annual Academy of Management meeting in Orlando, FL on 15 Aug 77.				
	9			
completion date: Responsible individual: 15 Aug 77 Capt Todd Stewart	OFFICE; AFIT/LSGQ	TELEPHONE: 54845		
IN COORDINATION WITH:				
LSG				
LSGQ				
Capt Filton				
BACKGROUND/JUSTIFICATION/SOURCES:	, , , , , , , , , , , , , , , , , , , ,			
1. Section 3-14 of the Graduate Facult	y Handbook	encourages		
participation in at least one meeting	g per year			
2. Will present paper: "Toward a Gr	neral Conti	ngency		
Theory of Management "				
1. (15 Aug 77) Complete				
1. (13 Aug 11) Compute				
	,			
APPROVED BY:	OFFICE:	DATE:		
Lt Col Edwards	AFIT/LSGQ	15 Jul 77		

APPENDIX B: AU/ATC PUBLICATIONS ON MBO

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DEPARTMENT OF THE AIR FORCE Headquarters Air University (ATC) Maxwell ALB AL 36112

AU REGULATION 25-1

Management Engineering MANAGEMENT BY OBJECTIVES (MBO) PLANNING

This regulation outlines procedures for operating an Air University (AU) MBO approach to planning. It applies to all Air University commandants, commanders, and (as identified by the AU Chief of Staff) AU Headquarters staff agencies.

- 1. Objective, All planning in support of educational programs will use a results-oriented approach in which commanders will participate in determining how best to reach and implement command goals. Anticipated benefits include better coordination of efforts, more objective performance appraisal, fixed responsibility for specific objectives, and greater understanding between units and staffs.
- <u>Definition of Terms.</u> MBO, goals/key results areas (KRAs), objectives, game plans, and milestones are defined in ATC Pamphlet 25-4.
- 3. Concept of Operations. All schools/units/staff agencies will develop measurable objectives (see ATC l'amphlet 25-4) commensurate with applicable ATC and All goals as specified in attachment 1. They will then develop 6-18 month milestone plans to attain those objectives. Each objective and milestone plan should be coordinated with the appropriate AU stati agency/other school/base support activity to it sure proposed actions are feasible and can be supported where outside involvement is necessary. After coordination, commanders/action officers will brief the All Commander on initial objectives with appropriate staff agencies in attendance. Thereafter, they will submit an ATC Form 1275, Objective/Programming Status Report, quarterly to AU/AC using the format described in attachment 2. the All Commander may require more frequent updates and will advise reporting agencies as HCCCSSAFV
- 4. Policy. MBO programs, when formalized and belahored with paperwork reporting systems, tend to become oppressive. They tend not to be the participative, sound planning procedures which this directive and ATC Pamphlet 25-4 hope to establish. By design, the AU program implements the use of one established form, ATC Form 1275, and advocates that

commanders not burden subordinates with additional forms and claborate coding systems. The program is more reasonably described as an approach to management where managers at all levels have input to objectives and to procedures to attain those objectives. Key to the AU philosophy is the need to focus strongly on a few quality objectives rather than cover many objectives lightly. It will be the policy of the AU Commander to review and approve the objectives in direct support of ATC and AU goals/KRAs. Once approved, these objectives are commitments for the 6to 18-month time period. Any slippage caused by unforeseen events is reasonable, and AU policy will be to adjust milestone completion dates accordingly. Target dates will not be considered too firm to change. (Nothing in this directive should be construed to suggest commanders may pursue no other lower level goals/objectives or discontinue developing 5-year objective plans as prescribed by existing requirements.)

S Responsibilities

- u. School commandants/organization communders heads of All Headquarters staff agencies (as identified by the All Chief of Staff) will:
- (1) Together with their subordinate managers and AU/ED, develop objectives and milestone plans following the guidance in ATC Pamphlet 25-4 and this regulation.
- (2) Seek appropriate staff and other organization coordination and subsequent AU Commander approval for objectives.
- (3) Provide AU/AC with a quarterly update (Objective Report, ATC Form 1275) for each AU/CC approved objective in support of ATC/AU goals.

No of Printed Pages 5 OPR, ACM (Col Donald T. Sandier, AU/EDM) 'Approved by: Col Charles F. Powell Distribution: F; X (ATC/ACM-1)

b. AU/ED will:

- (1) Brief all managers, IAWATC Pamphlet 25-4, paragraph 8, on the mechanics of the AU MBO Program.
- (2) Provide all units with ATC/AU changed goals/KRAs.
- (3) Upon request, assist units in staffing milestone plans and in defining objectives and measures of effectiveness.
- (4) Coordinate program changes (ATC Form 1275) quarterly or as requested by AU/AC for educationally oriented objectives.

YANCEY G. SWEARINGEN, Captain, USAF Chief, Central Base Administration

ig. AU/AC will serve as OPR for the reporting aspect of the AU MHO planning effort and will:

¿(1) Receive, maintain and display quarterly
updates (ATC Forms 1275) in a looseleaf notehook for
the AU Commander.

(2) Obtain appropriate staff/other school coordination on quarterly updates prior to updating the Commander's notebook.

& Form Implemented ATC Form 1275.

RAYMOND B. FURLONG Lieutenant General, USAF Commander

2 Attachments
1. ATC and AU Goals/KRAs
2. Objective/Programming Status Report (ATC Form 1275)

ATC AND AU GOALS/KEY RESULTS AREAS (KRAS)

the following ATC goals/KRAs require results-oriented objectives by AU organizations as appropriate:

- · Recruit quality people
- Increase training offectiveness/efficiency
- Advance ATC as a pacesutter command
- Enhance AF readingss

The following AU goals/KRAs require results-oriented objectives by AU organizations as appropriate:

- Provide quality officers
- Conduct programs of substance in all courses
- Operate educational programs more efficiently

Objective Reports for objectives that can show measurable results in from 6 to 18 months may be brief in number (three or four objectives).

Objectives supporting ATC and All goals may treat course material, methodology, acculty selection, faculty development, school/unit organization, library services, research products, scheduling, student and faculty identification for wartime augmentation, innovations in course development, program evaluation techniques, faculty-staff/student ratios, personnel service, contract services, base support, etc. ATC and AU goals/KRAs are broad; resultant objectives and milestones need to be precise.

INSTRUCTIONS FOR COMPLETING THE OBJECTIVE REPORT (ATC FORM 1275)

The ATC Form 1275 (attached) is to be used to report a summary of management actions planned to accomplish your objective. The original of this report is due to AU/AC NLT 1200 on the last Monday of every fiscal quarter. Make maximum use of meaningful abbreviations and attempt to limit your report to one page per objective.

Item

- Type in the command goal which the objective supports.
- 2 Statement of objective, including completion date. See ATC Pamphlet 25-4. (Keep statement short.)
- Date objective began. When changes are made to an objective or game plan, show change number in parenthesis following date, for example, 2 Dec 77 (C-1).
- 4 Provide office symbol, grade, name, and phone of action officeral the charged with the responsibility for the objective.
- Description of rationale which led to establishing this objective.

 (Why are we doing it?)
- 6 Short statement describing major actions required. (Limit to key words.) Support with major subactions if necessary.
- 7 Calendar year schedule of expected start and completion of milestones.

 Use upper case Os (easy to type) and connect them with a solid line

 --dotted line indicates a slippage. Empty circles show incomplete
 action.
- 8 Comment on reason for slippage, if any, and management action; required and being taken; mention briefings planned, changes in objectives, etc.

MANAGEMENT ENGINEERING

ATC MANAGEMENT BY OBJECTIVES

15 DECEMBER 1977

AIR TRAINING COMMAND

Foreword

As the Commander of the multifaceted Air Training Command, I want to provide the Air Force with high quality trained personnel at the least possible cost. In day-to-day operations we are tackling this task pretty well, but the future will require the same or higher quality product with less dollars and manpower. A way I see to do this within our command is to improve our management by using results—oriented management by objectives (MBO) in planning.

Each of you has a duty above and beyond just doing your job, and that unwritten charge is how can I do it better?

Our first efforts at MBO are behind us and we learned a great deal of information to use as a springboard for the revised MBO program. Phase II of the ATC MBO program will follow the "Keep it Simple and Short" principle.

What I want to know is what you are planning to do to meet our training standards and at the same time reduce costs. As I visit each of you I will seek the answer to these questions.

In keeping with the renewed emphasis on ATC MBO, the adopted command goals cover the spectrum of our mission. Inherent in the nature of these goals is the fact that we will never reach them, since they have no finiteness, and their standards are subject to change. Beneath the umbrella of these goals, however, HQ ATC is working to make headway, within the relatively near term of 6 to 18 months, toward some quantified objectives.

Following our Buck Stop philosophy, phase II will continue to encourage our field commanders to operate autonomously (although they will be kept closer informed of headquarters goals and objectives) and to determine the extent, depth, and formatting of the MBQ program that will operate in their units.

Management Engineering

ATC MANAGEMENT BY OBJECTIVES

This pamphlet provides guidance for the conduct of the command management by objectives program. It applies to all Headquarters ATC staff agencies, centers, wings, and separate operating activities.

	Paragraph	Page
Section A—General		
Introduction	1	1
Explanation of Terms	3	1
Section B-MBO in ATC		
Overall Concept	3	2
Identifying Goals/ KRAs	4	2
Objectives	5	3
Formulating Milestones, Game Plan, and Action Plan	6	4
The Role of Participation	7	4
Education in MBO	8	4
MBO Administration—Tracking and Reporting Results	9	4
Section C—Checklist for Implementing MBO		
Determine Your Goals/ KRAs	10	5
Set Objectives	11	5
Establish a Game Plan	12	5
Progress	13	5
Corrective Action	14	5
Attachment		
1. Bibliography and Recommended Readings on MBO		6

SECTION A-GENERAL

1. Introduction:

a. The Air Force of today and the future is faced with the challenge of having to do more with less; the answer to this challenge lies in better management of our total resources.

b. Management by obectives (MBO) is a management philosophy that will provide us better management. It is widely accepted in industry and in many agencies of the Department of Defense (DOD). MBO is based on logic, simplicity, and proven organizational principles.

c. As used in ATC, MBO is not pure Druckerism but rather a management process that melds the ATC Commander's personal management style with many aspects of textbook MBO. This pamphlet builds upon the Commander's ideas to give you a complete package-everything you'll need to let Phase II MBO work for you.

2. Explanation of Terms, The terms used in MBO are defined in many ways depending on the viewpoint of the MBO author and the particular area he wishes to stress. For the purpose of the ATC MBO program

the following definitions should be used:

a. Management by Objectives (MBO), MBO is an exfremely simple system of management that defines a unit's objectives in its most important areas of responsibility and it uses these objectives and the expected results as guides for management emphasis in the unit. MBO consists of nothing more than determining how you can perform your mission better -74- (in quantitative terms) and developing a road map or game plan on how to get there.

Supersedes ATCR 25-2, 5 January 1976. OPR: XPXS (Maj D.H. Williams) Approving Director: Cal H.S. Bowden Editor: J.H. Eastinead DISTRIBUTION: F: X: AFISC/DAP - ! AUL/LSE - 1

b. Goals/Key Result Areas (KRAs). In the ATC MBO program these terms are synonymous. Goals/KRAs are brief 1 to 3-word statements that identify the most important areas of your responsibilities where specific results must be obtained. They could, for lack of better terms, be called your moneymakers, high resource use areas, or even the "Killer Items" from recent management effectiveness inspections. In a military organization, these goals are stated at one level below the mission statement that defines the overall direction of the organization.

NOTE: Defining your goals/ KRAs is an intermediate step between the organization's mission statement and its statement of specific objectives.

c. Objectives. The specific objectives in the ATC MBO program should be statements that define achievable challenging results that transcend the day-to-day accomplishment of the unit's mission. (For purposes of the ATC program most objectives should produce results in about 6 to 18 months.)

By nature, objectives are part of the management function of planning. In brief, what are you going to do to perform your job better as defined by either a t, performance, or schedule basis?

d. Game Plan, Milestones, Action Plan, and Plan of Attack. The game plan is a set of actions/accomplishments that need to be followed to achieve the objective. It is a road map that identifies stops that must be made or fulfilled to successfully arrive at your destination.

SECTION B-MBO IN ATC

3. Overall Concept. The management market today is supersaturated with MBO techniques and applications. Drucker's, Odiorne's, McGregor's, McGregor's, McGregor's, etc., concepts have been analyzed, understood, misunderstood, applied, misapplied, and reinterpreted. But there are common areas of understanding and application which most MBO managers agree upon.

To start with, MBO is a systematic method of management that employs clearly defined and realistic objectives which can be applied at any level of management. Systematic means we've got a type of roadmap which shows how to get there from here. Management means getting to our objective with vever resources (people, money, material, and ie) are available. The objectives themselves refer to the results expected—where we want to go. Meeting an objective is the end product of your efforts; this is

what MBO is all about. Finally, we need to stress application to any level of mangement. The uniqueness of MBO is its adaptability; it can work at any level of an organization.

You may ask, "What's in it for me?" ATC MBO is designed as a parallel management approach to complement the more conventional management process already in use today. It is intended to get you out of the activity trap and into an objective oriented process. In our program, your activities are a means to an end that improves some cost, performance, or schedule area. Let's look more closely at the benefits you can expect from MBO.

8. First, you'll know exactly where your organization is headed. Your objectives will be clearly defined.

b. Because you know the direction that you want to go you'll have more time for managing your daily activities and your unit's accomplishments. With practice, you'll learn what it really means to manage resources.

g. MBO lets you know where you stand in the organization and how you fit into the overall command, center, or wing picture. As you implement MBO, your particular job and responsibilities will be clearly understood.

As a participant in ATC's MBO program your individual programs should include a determination of what you are working toward, and what your game plan is to arrive at it. We all have a mission to perform regardless of our level of work. Question yourselves, "How can we do our job better, easier, and more cost effectively?" Planning and problem solving is what ATC MBO is all about. Your MBO program should not be used to duplicate existing day-to-day management systems, or Drucker's, Odiorne's, or Morrissey's philosophy. It is a complement to our more conventional familiar management process, as it adds focus and priority to your management activity.

As the commander or supervisor of an organization about to implement MBO, you should review your mission statement and those of your immediate commander or supervisor. Each mission statement defines the continuing purpose of an organization. From the mission statement there should flow a list of goals or key results—phrases that identify broad task areas where specific results must be obtained.

To do this the series of steps in the next paragraphs will aid in establishing a results producing program.

4. Identifying Goals/KRAs. Having reviewed your mission and function statements and those of your superiors, you are ready to identify goals/KRAs. -75-

There are, however, several characteristics of KRAs you should be familiar with before writing your own. KRAs should:

- a. Identify the most important areas of your responsibility scope the jobs of your organization, concentrating on areas that produce the most significant results. What are the most important functions your unit performs? (In terms of resources consumed: time, money, manpower, energy, material.)
 - b. Be broad in scope.
 - c. Be long term in nature.
- d. Be limited in number start with two or three priority areas.
 - e. Not necessarily be measurable.
- f. Lead to associated objectives which are accomplishable - each KRA should have one or more
- g. Be primarily within your limits of authority and responsibility.

When writing your KRAs use only a few words. avoid action words (save verbs for the objectives), and do not indicate quantities or timing.

At this point in the ATC MBO process you should have a clear understanding of your mission and function statement and have completed the goal/KRA definition step of the MBO process. Arrival at this point has required that you (1) review your mission and function statements and those of an echelon or two above you; (2) identify within your unit, those outputs which consume most of your resources; and (3) write down the goals/ KRAs you derived through the above actions.

5. Objectives:

You are now ready to begin identifying specific objectives for your unit. These objectives are the real focus of your MBO program and give purpose to your organization's activities. If, however, you haven't properly identified the goals/ KRAs from your mission statement then you may miss the boat with the objectives you develop. (You'll show results, but not necessarily in your high impact areas.)

Objectives in our ATC program should be determined from the goals and key mission areas. Specifically, planning how you can do your job better. eriented toward some cost, performance, or schedule basis. These objectives should: (1) provide planning direction for your unit's work, (2) give guidelines for hower level managers to formulate their planning 76-by 21 the persons involved.

objectives, and (3) be tangible and accomplishable in about 6 to 18 months.

The result of this step in the MBO process is a list of meaningful and realistic objectives. To accomplish this you should know the mechanics of stating objectives plus the requirements and characteristics of writing good objectives. We will start with mechanics using the following guide to objective writing. Objectives should contain the following:

- a. 'An action phrase.
- b. The desired result.
- c. A date for achievement.
- d. A priority.

For example:

To implement the HQ MBO program through DCS level by 31 Dec 77. (1)

To implement (action)

the HQ MBO program through DCS level (result) by 31 Dec 77. (date)

(1) (priority)

Notice that the objective is an action directed toward achieving a result by a specific time and with the highest priority (1).

Keeping this example in mind we can list these requirements of writing objectives.

- a. The state results to be achieved.
- b. They are measurable—when, how much, how many.
 - g. They are uchievable.

Since correctly written objectives are so important to the success of your MBO program, the following expand the characteristics of an objective.

Specific - An objective should describe only one result in a manner that there can be no ambiguity about what is expected. Specify "what" and "when." Objectives should contain only that information necessary to understand them. Trying to put more information into an objective only makes it less precise.

Measurable - measurement of results is the key to success in an MBO program. If an outcome cannot be measured, the degree of achievement will not be known and the management challenge will be lost. You must know where you have been and when you have reached your objective.

Understandable to those who are directly concerned (i.e., the manager, his subordin tes, and his supervisor). Acronyms or technical jargon are acceptable if they are commonly used and understood hallenging. But Realistic the status quo is not acceptable enough and must be improved upon. An objective should never describe what is already being achieved; it should motivate the manger to raise the sights to new levels of accomplishment. It must be realistic; an impossible-to-achieve objective generates frustration.

Result-oriented -- focus on results, not activities.

Significant—an objective should define a result which is meaningful and important to the organization. Defining objectives in relatively insignificant area wastes time, blurs the focus on the more important areas, and unnecessarily swamps the system.

Singular responsibility—one person with sufficient authority must be responsible for and capable of achieving an objective. Avoid dual responsibility; if this is not possible, establish a working group to complete the objective.

Consistent with available resources—ways must be found to do the job better with less, not more resources.

"doritized—to provide a basis for choosing among nands which compete for resources.

6. Formulating Milestones, Game Plan, and Action Plan:

The game plan is nothing more than a step-by-step description of significant activities you will have to do to reach your objectives. It's a road map or PERT chart. It's the how, when, and who of activities that lead to results. Each objective should have a game plan and each step or milestone of that plan must be carefully thought out to avoid problems in accomplishing your objective. Good planning now can avoid the embarrassment of realizing later that there is no way to achieve your objective with the time or resources you have available.

Game plans may be developed in a variety of ways. One of the more common techniques is to list the required actions in a sequential or chronological order. Another technique involves the use of a PERT chart, where each step is dependent on successful completion of the preceding step.

after you have begun work on the game plan and estone activities, you find stumbling blocks it is time to:

a. Determine the cause of the variance.

b. Initiate corrective action which may take any of the following forms: adjust timing, add milestones, add resources, and reevaluate the objective.

7. The Role of Participation:

Most authors agree that participative management plays a part in MBO. What these same authors disagree on is the type, degree, and depth to which workers should be involved in the objective setting process.

Opinions, based on research on the impact of participation in the MBO process, have also been divided. Social scientists indicate that participative management is not adaptable to all situations. Within the ATC MBO program the process of establishing goals, objectives, and game plans may employ either participative management or the top-down approach.

4. Education in MBO:

One of the keys to success at implementing or restarting an MBO program is an educational effort that precedes or is concurrent with the implementation or modification of the system. Knowledge of MBO as a management philosophy and how it should be applied at your installation are important obligations to meet before an attempt to apply the concept gets started.

The education effort should outline the mechanics of the MBO program for the key managers who are expected to "work" it. The education need not be extensive, formal, or standardized, but all managers expected to participate in the MBO program need to be briefed on it.

8. MBO Administration-Tracking and Reporting Results, The thrust of MBO is to produce results, not paperwork or additional reports on areas that are already tracked in day-to-day management. In the ATC MBO program, if units have focused their objectives on the goals/ KRAs, tracking progress does not demand a lot of different schedules and statements. Wings, centers, and units will determine their own reports system tailored to tracking progress of their individual MBO programs. However, only in exceptional circumstances should it be necessary to establish a new reporting element or organizational line to track MBO progress. If it becomes necessary to do so, that reporting element probably should have been a part of the "normal" management information system in the first place. Therein would lie the advantage of MBO in complementing rather than supplementing "normal" management.

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SECTION C-CHECKLIST FOR IMPLEMEN-TING MBO

- 10. Determine Your Goals/KRAs. Recall that these are short 1, 2, or 3-word statements of responsibility where specific results must be obtained:
- a. Identify your organization's roles and missions (either from its formal statement, regulations, or by your analysis) or,
- b. Identify roles and missions of your functional unit, including those of your immediate superior.
- c. Using your assessment of roles and missions, determine the goals/KRAs that you would like to improve through quality enhancement or reduction in use of resources.

11. Set Objectives (determine the results to be achieved):

- a. On the basis of your goals/KRAs identify the specific improvements you wish to place in objective form.
- b. Determine realistic and achievable (measurable) targets for completion of each objective.
- Establish priorities for identified objectives, determine which ones should receive the greater emphasis.
- d. Determine a means of measurement (costs, performance, schedule) that will serve as an indicator of satisfactory performance, or progress against each objective.



D. S. WEART, Colonel, USAF Director of Administration e. Write each objective in a manner that will allow its use as an effective working tool.

The purpose of the ATC MBO program is to achieve measurable results. Therefore, identify objectives which can be completed in about a 6 to 18 months.

12. Establish a Game Plentille

- a. Determine the major steps/milestones necessary to achieve the end results identified in the objectives.
- b. Determine the priorities to be assigned to each major step of your plan.
- c. Rank order or chronologically list the steps and milestones necessary to achieve the objective.

When possible delegate the actual determination of your game plan steps to those subordinates who are expected to carry them out. (These, in turn, may become objectives for each related subordinate.)

- 13. Progress. You have now determined the goals of your organization and focused on some specific objectives and results you would like to accomplish. Your plan of attack will guide you along the way and provide you the necessary feedback (how goes it) on progress toward results.
- 14. Corrective Action. If you encounter stumbling blocks take corrective action.

JOHN W. ROBERTS, General, USAF Commander

BIBLIOGRAPHY AND RECOMMENDED READINGS ON MBO

BOOKS

Blake, Robert R., and Mouton, Jane S., eds. The Managerial Grid. Houston: Gulf Publishing Co., 1972.

Drucker, Peter F., The Practice of Management. New York: Harper & Row, 1954.

Drucker, Peter F., Management: Tasks, Responsibilities, Practices. New York: Harper & Row, 1974.

Ebert, William L. and Robert B. Middleton. MBO Handbook for Small USAF Working Groups. AU Research Study #0680-77.

Humble, John W., Management by Objectives in Action. London: McGraw-Hill Book Co., 1973.

McConkey, Dale D., How to Manage by Results. New York: AMA, Rev. Ed., 1967.

McGregor, Douglas, The Human Side of Enterprise. New York: McGraw-Hill, 1967.

Morrissey, G. I., Management by Objectives and Results. Reading, MA: Addison-Wesley, 1970.

Odiorne, George S., Management by Objectives: A System of Managerial Leadership. New York: Pitman Publishing Corp., 1965.

Varney, Glenn H., Management by Objectives. Chicago: Dartnell Corp., 1971.

PERIODICALS

- dling, Laurie A., "Industrial Democracy and the Future of Management of the United States Armed orces." Air University Review, 26, 6 (September-October 1977), pp 42-52.
- Haveman, Joel, "Administration Report/OMB begins major program to identify and attain Presidential goals." National Journal, (June 2, 1973).
- Krahenbuhl, D. W., "MBO -Can It Be Used To Improve Management of AF Units?" AU Review, Nov-Dec 1975.
- Lustig, Sheldon J., "Counterpoint, MBO: Asset." Engineering and Services Quarterly, August 1977, pp 18-22.
- McConkey, Dale D., "Twenty Ways to Kill Management by Objectives." Management Review, Vol. 61 (October 1972), pp 5-13.
- Varney, Glenn, "Management by Objectives: Making It Work." Supervisory Management, 17, 1 (January, 1972) pp 24-34.

REGULATIONS

AF Contract Management Division Pamphlet 178-2, 30 Aug 74.